

termination of resuscitation and those records which were unavailable) were identified through review of all patch records from January 1, 2014 to December 31, 2017 for Paramedic Services in our region. Written Ambulance Call Reports (ACRs) and audio recordings of paramedic patches were obtained and reviewed. **Results:** 214 patch records were identified and screened for inclusion. 91 ACRs and audio patch records were included in the analysis. 51 of 91 (56%) patch requests were granted by the BHP. Of the 40 paramedic requests that were not granted, the most commonly cited reason was close proximity to hospital (22/40; 55%) followed by low likelihood of the intervention making a clinical impact in the prehospital setting (11/40; 27.5%). Requests for certain interventions were more likely to be granted than other requests. All requests to perform needle thoracostomy for possible tension pneumothorax, administer atropine for symptomatic bradycardia and treat hemodynamically unstable hyperkalemia were granted (2/2, 3/3 and 7/7, respectively), while requests for synchronized cardioversion (7/19; 37%) and transcutaneous pacing (2/6; 33%) were approved less than half of the time. **Conclusion:** This retrospective review suggests that requests to perform certain critical and potentially time sensitive interventions are more likely to be granted which calls into question the requirement for a mandatory patch point for these procedures. Furthermore, the interplay between proximity to hospital and the decision to proceed with an intervention potentially informs future modifications to directives to facilitate timely, safe and efficient care.

Keywords: mobile communication, online medical control, prehospital

MP43

Evaluating factors related to quality of audio transmission during mandatory paramedic patches and technical barriers to efficient communication in the prehospital setting

D. Kelton, BSc, MD, S. Doran, BA, BSc, MD, BEd, M. Davis, MD, MSc, K. Van Aarsen, MSc, J. Momic, BSc, Western University, London, ON

Introduction: Delegation of controlled medical acts by physicians to paramedics is an important component of the prehospital care framework. Where directives indicate that physician input is needed before proceeding with certain interventions, online medical control (a "patch") exists to facilitate communication between a paramedic and a Base Hospital Physician (BHP) to request an order to proceed with that intervention. The quality and clarity of audio transmission is paramount for effective and efficient communication. The aim of this study was to examine the impact of audio transmission quality on the results of paramedic patch calls. **Methods:** Prehospital paramedic calls that included a mandatory patch point (excluding requests exclusively for termination of resuscitation and those records which were unavailable) were identified through review of all patch records from January 1, 2014 to December 31, 2017 for Paramedic Services in our region. Written Ambulance Call Reports (ACRs) and audio recordings of paramedic patches were obtained and reviewed. Pre-specified patch audio quality metrics, markers of transmission quality and comprehension as well as the resulting orders from the BHP were extracted. Differences between groups was compared using chi-square analyses. **Results:** 214 records were identified and screened initially. 91 ACRs and audio records were included in the analysis. At least one explicit reference to poor or inadequate call audio quality was made in 55/91 (60.4%) of calls and on average, 1.4 times per call. Of the 91 audited call records, 48 of 91 (52.7%) patches experienced

an interruption of the call. Each time a call was interrupted, re-initiation of the call was required, introducing a mean [IQR] delay of 81 [33-68] seconds to re-establish verbal communication. Order requests made by paramedics in calls with no interruptions were approved in 30 of 43 patches (70%) while those requests made in calls with one or more interruptions were approved in only 21 of 48 cases (44%) ($\Delta 26.0\%$; 95%CI 5.6-43.5%, $p = 0.01$). **Conclusion:** This retrospective review suggests that audio quality and interruptions of patch calls may impact a physician's ability to approve orders for interventions in the prehospital setting. Focus on infrastructure and technology underlying this important mode of communication may be a fruitful avenue for future improvements in systems where this may be an issue.

Keywords: mobile communication, online medical control, prehospital

MP44

Implementing rural advanced care community paramedics in rural and remote British Columbia: a qualitative research approach

F. Besserer, MD, MSc, D. Banner-Lukaris, PhD, J. Tallon, MD, MSc, D. Kandola, BHSc, MHSc, University of British Columbia, Prince George, BC

Introduction: Community paramedicine is well-established with an increasing evidence base to support its role in improving healthcare delivery in Canada and across the world. In British Columbia (BC), the BC Emergency Health Services (BCEHS) community paramedicine program provides an avenue to expand the Advanced Care Paramedic (ACP) role in underserved rural and remote communities across the province. **Methods:** We undertook stakeholder consultations using purposive sampling to better understand the barriers and facilitators impacting the integration of rural advanced care community paramedics (RACCPs) in 6 BC communities and to evaluate stakeholder perspectives of the implementation and impacts of the RACCP. 18 in-depth interviews were completed with a diverse range of stakeholders. The interviews were analyzed using a qualitative descriptive approach and the Theoretical Domains Framework. **Results:** A number of key facilitators and barriers to implementation of the RACCP were identified. Facilitators included the RACCP bridging significant gaps in existing community-based healthcare services including palliative care, harm reduction, and home-based assessment. The RACCP also provides leadership within their communities by actively engaging in the delivery of informal and formal debriefing, mentorship, and education. Identified barriers to RACCP implementation included confusion over the scope of the RACCP role, lack of shared health data, and various regulatory challenges. Several priority areas for ongoing development were also identified including workforce planning, addressing regulatory requirements, developing a strategic and systematic activation and dispatch process, providing continuing mentorship and supports for RACCPs, and the importance for ongoing engagement with end-users to determine the impact of the RACCP role for community health services. **Conclusion:** This research provides a strong foundation for addressing healthcare delivery in rural and remote BC by identifying the unique challenges communities face in healthcare provision and is a leading initiative for the ongoing development of professional paramedic practice across the province.

Keywords: community paramedicine, health service delivery, rural

MP45**What to do with #MeToo: pre and post presenting patterns of intimate partner violence**

A. Sobiesiak, BHSc, K. Muldoon, MPH, PhD, L. Shipeolu, BA, M. Heimerl, BA, MSW, K. Sampsel, MD, University of Ottawa, Ottawa, ON

Introduction: The #MeToo social media movement gained international status in October 2017 as millions disclosed experiences of sexual and intimate partner violence. People who experience violence from a former/current intimate partner may not present for care for many reasons, among them not knowing where to go for care, or not realizing they were experiencing abuse since the behavior was portrayed as 'normal'. Empirical research identified increased police reporting, internet searches, and new workplace regulations on sexual assault/harassment after #MeToo. Less is known about how #MeToo has influenced hospital-based care, particularly among IPV cases. We aimed to investigate if the #MeToo social movement influenced patterns of IPV cases presenting for emergency care. **Methods:** This study took place at the Sexual Assault and Partner Abuse Care Program (SAPACP), within the Emergency Department of The Ottawa Hospital. Patients seen from November 1st, 2016 through to September 30th, 2017 was considered Pre-#MeToo and those seen November 1st, 2017 to September 30th, 2018 was considered Post-#MeToo. All patients seen in October 2017 were excluded. Analyses compare the proportion and characteristics of IPV cases seen Pre- and Post-#MeToo. Log-binomial regression models were used to calculate relative risk and 95% CI. **Results:** 890 cases were seen by the SAPACP during the total study period, of which 564 (63%) were IPV cases. 258 IPV cases were seen Pre-#MeToo and 306 IPV Post-#MeToo. The clinical presentation of IPV cases was similar between both periods where approximately 42% of IPV cases presented for sexual assault, 50% presented for physical assault. An increase in frequency and proportion of IPV cases was observed post-#MeToo. Post-#MeToo there were 48 additional cases of IPV, corresponding to almost a 20% increase in risk compared to the Pre-#MeToo period. (RR: 1.19, 95% CI: 1.07-1.31) Post-#MeToo, there were more presenting cases of IPV among male/trans cases (9 vs 26) and youth cases (82 vs 116). **Conclusion:** #MeToo is a powerful social movement that corresponded with a significant increase in IPV cases presenting for emergency care. While the assault characteristics among IPV cases remained similar, an important contribution of this research is the increase in youth, male/transgender patients who presented for care post-#MeToo. Continued investigations into pre- post-#MeToo trends is needed to understand more about the changing clinical population and to inform resource and service allocation.

Keywords: domestic violence, intimate partner violence, trauma

MP46**Clinically significant traumatic intracranial haemorrhage following minor head trauma in older adults: a retrospective cohort study**

E. Mercier, MD, MSc, T. O'Brien, MBBS, B. Mitra, PhD, MBBS, N. Le Sage, MD, PhD, P. Tardif, MSc, M. Emond, MD, MSc, M. D'Astous, MD, PhD, Hôpital de l'Enfant-Jésus, Québec, QC

Introduction: The primary objective of this study was to determine the incidence of clinically significant traumatic intracranial haemorrhage (T-ICH) following minor head trauma in older adults. Secondary objective was to investigate the impact of anticoagulant and antiplatelet therapies on T-ICH incidence. **Methods:** This

retrospective cohort study extracted data from electronic patient records. The cohort consisted of patients presenting after a fall and/or head injury and presented to one of five ED between 1st March 2010 and 31st July 2017. Inclusion criteria were age ≥ 65 years old and a minor head trauma defined as an impact to the head without fulfilling criteria for traumatic brain injury. **Results:** From the 1,000 electronic medical records evaluated, 311 cases were included. The mean age was 80.1 (SD 7.9) years. One hundred and eighty-nine (189) patients (60.8%) were on an anticoagulant (n = 69), antiplatelet (n = 130) or both (n = 16). Twenty patients (6.4%) developed a clinically significant T-ICH. Anticoagulation and/or antiplatelets therapies were not associated with an increased risk of clinically significant T-ICH in this cohort (Odds ratio (OR) 2.7, 95% CI 0.9-8.3). **Conclusion:** In this cohort of older adults presenting to the ED following minor head trauma, the incidence of clinically significant T-ICH was 6.4%.

Keywords: head injury, intracranial haemorrhage, traumatic brain injury

MP47**Factors associated with preventable trauma death: a narrative review**

G. Genois, I. Vlahovic, L. Moore, PhD, B. Beck, MD, MSc, P. Blanchard, MD, PhD, M. Émond, MD, MSc, B. Mitra, MD, PhD, MBBS, P. Cameron, MD, MBBS, A. Nadeau, PhD, É. Mercier, MD, MSc, Hôpital de l'Enfant-Jésus, Québec, QC

Introduction: Trauma care is highly complex and prone to medical errors. Accordingly, several studies have identified adverse events and conditions leading to potentially preventable or preventable deaths. Depending on the availability of specialized trauma care and the trauma system organization, between 10 and 30% of trauma-related deaths worldwide could be preventable if optimal care was promptly delivered. This narrative review aims to identify the main determinants and areas for improvements associated with potentially preventable trauma mortality. **Methods:** A literature review was performed using Medline, Embase and Cochrane Central Register of Controlled Trials from 1990 to a maximum of 6 months before submission for publication. Experimental or observational studies that have assessed determinants and areas for improvements that are associated with trauma death preventability were considered for inclusion. Two researchers independently selected eligible studies and extracted the relevant data. The main areas for improvements were classified using the Joint Commission on Accreditation of Healthcare Organizations patient event taxonomy. No statistical analyses were performed given the data heterogeneity. **Results:** From the 3647 individual titles obtained by the search strategy, a total of 37 studies were included. Each study included between 72 and 35311 trauma patients who had sustained mostly blunt trauma, frequently following a fall or a motor vehicle accident. Preventability assessment was performed for 17 to 2081 patients using either a single expert assessment (n = 2, 5.4%) or an expert panel review (n = 35, 94.6%). The definition of preventability and the taxonomy used varied greatly between the studies. The rate of potentially preventable or preventable death ranged from 2.4% to 76.5%. The most frequently reported areas for improvement were treatment delay, diagnosis accuracy to avoid missed or incorrect diagnosis and adverse events associated with the initial procedures performed. The risk of bias of the included studies was high for 32 studies because of the retrospective design and the panel review preventability assessment. **Conclusion:** Deaths occurring after a trauma remain often preventable. Included studies